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| EXAMINER | |
|---|---|
| GREECE, JAMES R | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2873 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/564,883 | LISSOTSCHENKO ET AL. | |
| | Examiner | Art Unit | |
| | JAMES R. GREECE | 2873 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *12 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-12 and 15-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 15-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 15, 17-18 and 20-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Gabor (USPAT 2,351,034).

Re claim 1, Gabor teaches for example in fig. 7, A process for producing an optical beam forming device which has a plurality of lens means which are arranged offset to one another in at least one direction on at least one optically functional interface, (see at least figure 7) characterized in that wherein the beam forming device is assembled from at least two optically functional components each of the at least two optically functional components on a first optically functional interface (see at least numerals 9 and 10) having at least one first cylinder lens means and on the second optically functional interface which is essentially opposite the first at least one second cylinder lens means with a cylinder axis which is aligned essentially perpendicular to the cylinder axis of the first cylinder lens means which is located on the first interface (see at least numerals 9 and 10).

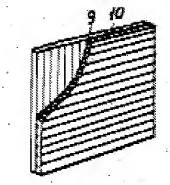


FIG. 7

Re claim 2, Gabor teaches for example in fig. 7, wherein at least two optically functional components are assembled such that the cylinder axes of the first cylinder lens means are oriented at least partially parallel to one another on a first optically functional interface of the beam forming device see at least numerals 9 and 10).

Re claim 3, Gabor teaches for example in fig. 7, wherein at least two optically functional components are assembled such that the cylinder axes of the second cylinder lens means are oriented at least partially parallel to one another on a second optically functional interface of the beam forming device (See at least numerals 9 and 10)

Re claim 4, Gabor teaches for example in fig. 7, wherein at least two optically functional components of at least one cylinder lens array with a plurality of first cylinder lens means on the first side and a plurality of second cylinder lens means on a second side opposite the first are cut ( for details see at least figures 9 and 10).

Re claim 5, Gabor teaches for example in fig. 7, wherein the cylinder lens array is cut by planes which are oriented essentially parallel to the lengthwise axes of the first cylinder lens means (for details see at least numerals 9 and 10).

Re claim 6, Gabor teaches for example in fig. 7, wherein the cylinder lens array is cut by planes which extend through the joint edges of adjacent first cylinder lens means and which orthogonally intersect the cylinder axes of the second cylinder lens means (for details see at least numerals 9 and 10).

Re claim 7, Gabor teaches for example in fig. 7, wherein lengthwise sides of the optically functional components are contoured at least in sections by segments being cut out of the lengthwise sides (for details see at least numerals 9 and 10).

Re claim 8, Gabor teaches for example in fig. 7, wherein the lengthwise sides are contoured at least in sections such that the joining of at least two optically functional components takes place such that the second cylinder lens means are located offset to one another at least in one direction (for details see at least numerals 9 and 10).

Re claim 9, Gabor teaches for example in fig. 7, wherein segments of the same size are cut out of the lengthwise sides of the optically functional components (for details see at least numerals 9 and 10).

Re claim 15, Gabor teaches for example in fig. 7, wherein the optically functional components are cemented to one another at least in sections (see at least numerals 9 and 10)

Re claim 17, Gabor teaches for example in fig. 7, which has a plurality of lens means which are arranged offset to one another in at least one direction on at least one optically functional interface (for details see at least numerals 9 and 10).

Re claim 18, Gabor teaches for example in fig. 7, wherein the beam forming device comprises cylinder lens means which are shaped convexly and/or concavely and which have spherical or aspherical jacket surfaces (for details see at least numerals 9 and 10).

Re claim 20, Gabor teaches for example in fig. 7, wherein the outer contour of the beam forming device is essentially round, rectangular, square or hexagonal (see at least numerals 9 and 10).

Re claim 21, Gabor teaches for example in fig. 7, wherein the beam forming device consists preferably of glass, especially of silica glass, or of plastic (for details see at least page 5 left column lines 45-52)

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 10-11 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Gabor (USPAT 2,351,034) as applied to claim 1 above, and further in view of Dubin (USPAT 6,278,546).

Re claim 10, supra claim 1. Gabor fails to explicitly teach wherein segments with cross sections which have a triangular outline are cut out of the lengthwise sides of the optically functional components

However, within the same field of endeavor, Dubin teaches for example in fig. 4b, wherein segments with cross sections which have a triangular outline are cut out of the lengthwise sides of the optically functional components

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Gabor to include a triangular structure as taught by Dubin for its cylindrical lenses for the predictable result of providing additional refractive properties.

Re claim 11, supra claim1. Gabor fails to explicitly teach wherein the optically functional components are joined in such a way that on the second interface of the beam forming device an essentially hexagonally packed arrangement of the second cylinder lens means is formed.

However, within the same field of endeavor, Dubin teaches for example in fig. 4b, wherein the optically functional components are joined in such a way that on the second interface of the beam forming device an essentially hexagonally packed arrangement of the second cylinder lens means is formed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Gabor to include a hexagonal structure as taught by Dubin for its cylindrical lenses for the predictable result of providing additional refractive properties.

Re claim 19, supra claim1. Gabor fails to explicitly teach wherein the lens means are arranged essentially hexagonally tightly packed on at least one optically functional interface of the beam forming device.

However, within the same field of endeavor, Dubin teaches for example in fig. 4b, wherein the lens means are arranged essentially hexagonally tightly packed on at least one optically functional interface of the beam forming device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Gabor to include a hexagonal structure as taught by

Dubin for its cylindrical lenses for the predictable result of providing additional refractive properties.

6. Claims 12, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabor (USPAT 2,351,034).

Re claim 12, supra claim 1. Furthermore Gabor fails to explicitly teach wherein the optically functional components are cut out of the cylinder lens array and contoured by means of ultrasound.

However the examiner takes official notice to the fact that ultrasound is a known method of contouring materials in the art and would have been obvious to one having ordinary skill at the time the invention was made. It would also belong to a specific and limited group of options from which one would have to choose to complete such a process of contouring. It would therefore have been within routine experiment and further obvious to try contouring the lenses using ultrasound since the number of options are well known and limited. One would be motivated to utilize ultrasound for its cleaner less bulky process.

Re claim 16, supra claim 1. Furthermore Gabor fails to wherein the optically functional components are soldered to one another at least in sections.

However the examiner takes official notice to the fact that soldering is a known method of adhering materials in the art and would have been obvious to one having ordinary skill at the time the invention was made. It would also belong to a specific and limited group of options from which one would have to choose to complete such a process of adhering. It would

therefore have been within routine experiment and further obvious to try adhering the components using soldering techniques since the number of options are well known and limited. One would be motivated to utilize soldering for its binding strength.

***Response to Arguments***

7. Applicant's arguments filed 3/12/2009 have been fully considered but they are not persuasive.

Regarding the applicant's assertion that there is no offset in at least one direction the examiner believes that the applicant's argument is not based upon the claim language as stated. The examiner has interpreted the claim language given its broadest reasonable interpretation for instance the examiner interprets the components to include numerals 9 and 10. Each of the two optically functional components includes a cylinder lens means on a first optically functional interface. Further the second component includes a second optically functional interface which is opposite in cylinder axis or perpendicular to the first interface of the first component. This interpretation clearly fulfills the claim language. The applicant argues as if the perpendicular lenses must be on the same component. This limitation is not clearly stated in the claims and is therefore imported from the specification. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES R. GREECE whose telephone number is (571)272-3711. The examiner can normally be reached on M-Th 7:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. R. G./
James R Greece
Examiner, Art Unit 2873
6/1/2009

/Ricky L. Mack/
Supervisory Patent Examiner, Art Unit 2873